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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,962	08/04/2003	Kurt Langen	4301-1016-2	4464

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EXAMINER

PERRIN, JOSEPH L

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/632,962

Applicant(s)

LANGEN, KURT

Examiner

Joseph L. Perrin, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/556,426.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04 August 2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 6,435,200.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the more narrow patented claims read on the broader claims of the instant application, such structure of both sets of apparatus claims comprising a holding means, a gas guide device, a gas feed means, and the claimed structural configurations.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5 & 9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,769,945 to Davis *et al.* (hereinafter "Davis").

Re claims 1-2, Davis teaches a device having a means for holding a wafer 14, a nozzle (reads on applicant's "gas feed means") 30 facing the surface of the wafer facing the gas feed means, a guide means 52 and 66 (reads on applicant's "gas guide device") away from the wafer and solvent dispense means (see, for instance, Figure 3 of Davis and relative associated text), and in which the gas guide device 52 is ring-shaped. Davis further teaches the chuck being adjustably raised and lowered (see, for instance, col. 6, lines 13-19) thereby disclosing an adjustable gap width which reads on applicant's gap width.

Re claims 3-4, Davis further discloses a gas guide device formed by an annular groove 64 concentric to the periphery of the gas feed means, and having an inside diameter smaller than the wafer, and outer diameter larger than the wafer (see, for instance, Figures 3, 6 & 7 and relative associated text).

Re claim 5, Davis further discloses the part of the gas feed means located between the gas feed means and the gas guide device 26 is at a greater distance to the wafer than the gas guide device to the wafer, and the gas guide does not touch the wafer (see Figure 3 and relative associated text).

Re claim 9, Davis further discloses the guide means 52/66 having a radially inward projection which diverts fluid away from the wafer surface, for instance, through perforations 66 (see Figure 3 and relative associated text).

5. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by US 5,904,164 to Wagner *et al.* (hereinafter "Wagner").

Re claim 1, Wagner discloses a device for treating the peripheral edge of a wafer including a holding means (chuck 1), a gas feed means (not shown, but implicitly taught via disclosure of a Bernoulli chuck), and a gas guide (surface 5) (see, for instance, col. 1, lines 60-64 & Figures 2-3). Moreover re claim 1, the position is taken that since the gap of Wagner inherently discloses the claimed gap ranges, capillary action of the liquid into the gap would inherently also exist.

Re claims 2 & 3, the gas guide is construed as being "ring-shaped" in view of the circular holder 1 and the gas feed means in the center of the holder of the Bernoulli chuck & having an inner diameter smaller than the outside diameter of the wafer and an outside diameter larger than the wafer, respectively (see also Figures 1-2).

Re claim 5, Wagner further discloses a part (peg 7) of the holding means being between the gas feed means (center portion of the chuck) and the gas guide (peripheral portion of the chuck) (see Figures 1-2).

Re claim 6, Wagner as cited above discloses using a Bernoulli chuck. Applicant also discloses (for instance on page 3, lines 8-13) using a Bernoulli

chuck. Therefore, the position is taken that Wagner inherently discloses the claimed constant gap distances of 0.05-1.0 mm since such ranges are consistent with the operating distances of a Bernoulli chuck (as evidenced but not relied upon by U.S. Patent No. 6,095,582 to Siniaguine *et al.*, equilibrium (constant) distance H in the range of 0.1-1.0 mm, col. 3, line 61-62).

Re claims 7-8, Wagner further discloses the gas guide being parallel to the wafer (Figure 2) and surrounding the holding means and the gas feed means (see, Figures 1-2 and recitation of gas guide above).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 6,095,582 to Siniaguine *et al.*, which discloses a Bernoulli chuck operating at a gap width of 0.1-1.0 mm.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph L. Perrin, Ph.D.
Examiner
Art Unit 1746

jlj

A handwritten signature in black ink, appearing to read "JL Perrin", is written over the printed name of the examiner.